

Figure 1A

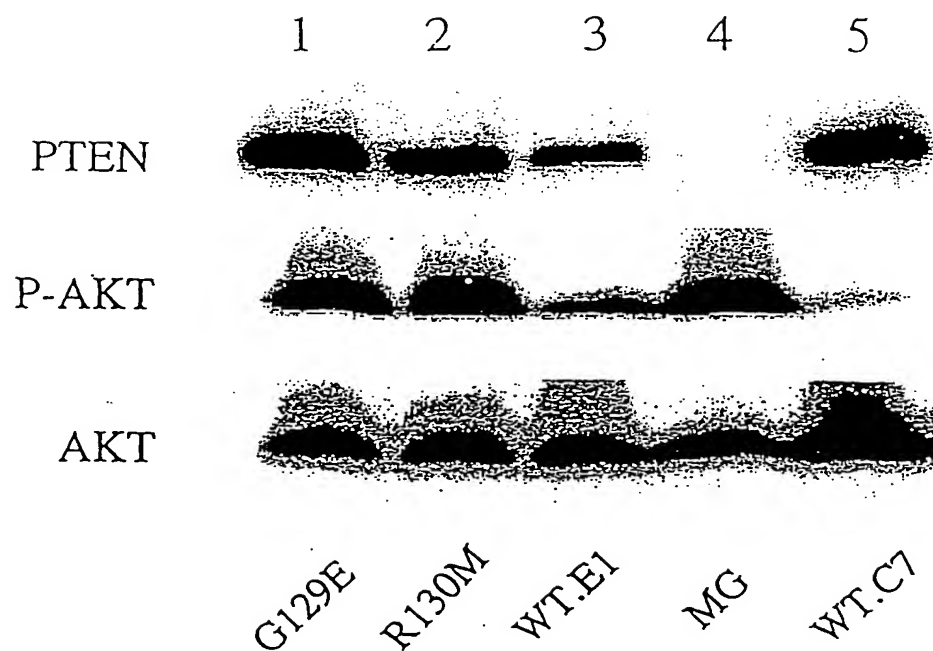


Figure 1B

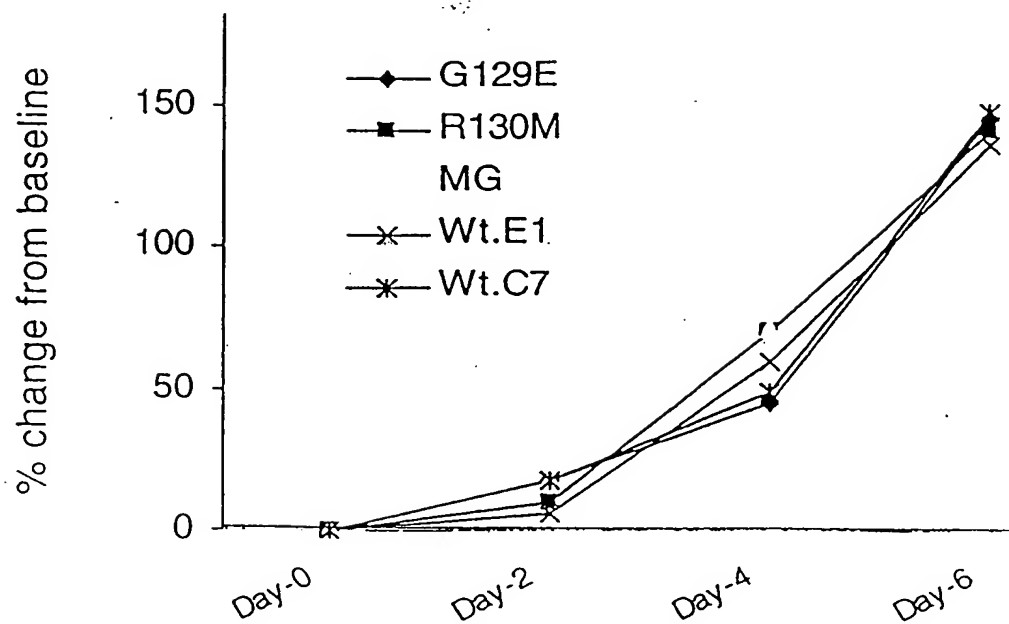


Figure 3A

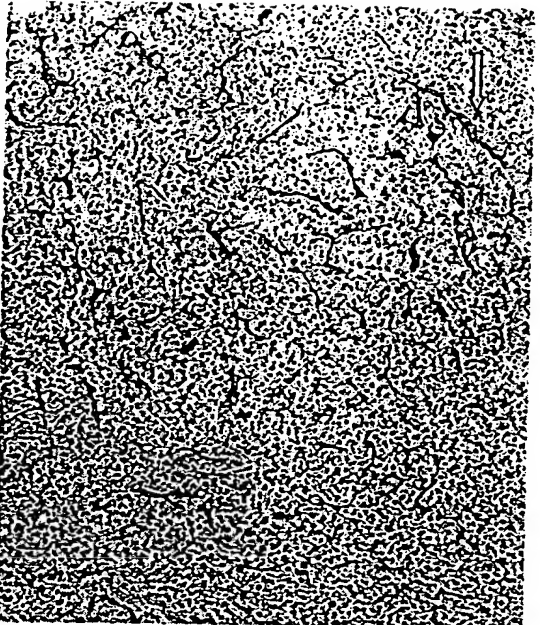


Figure 3B

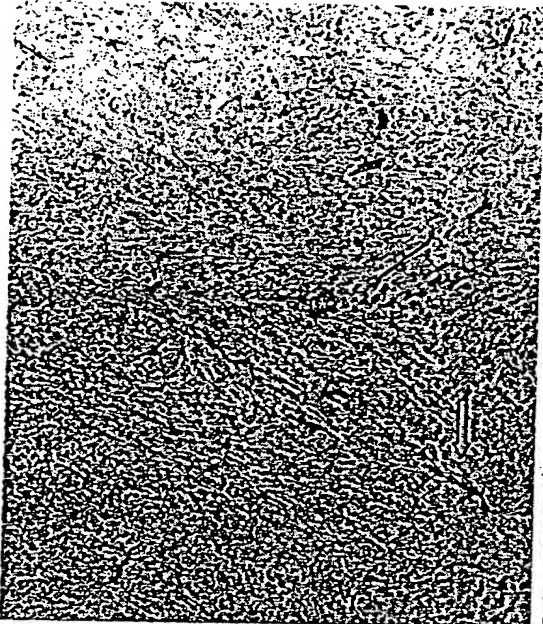


Figure 3C

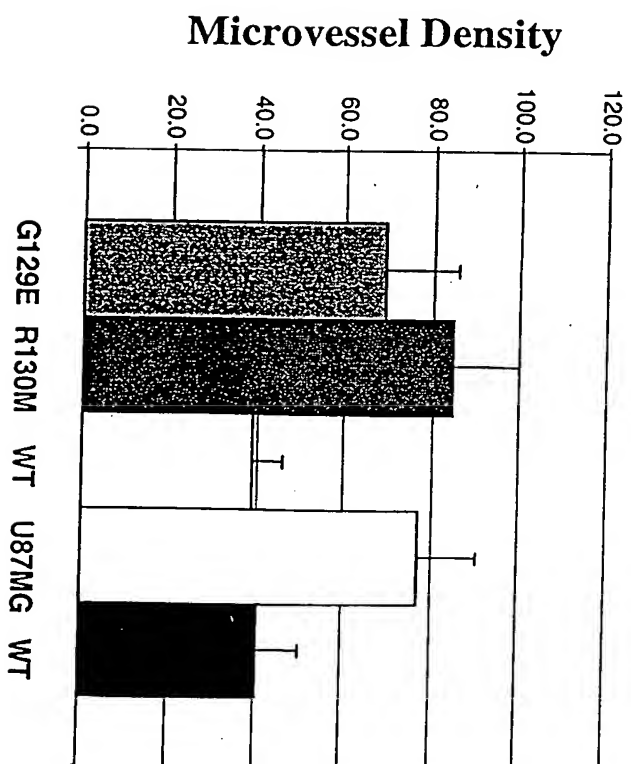


Figure 2A

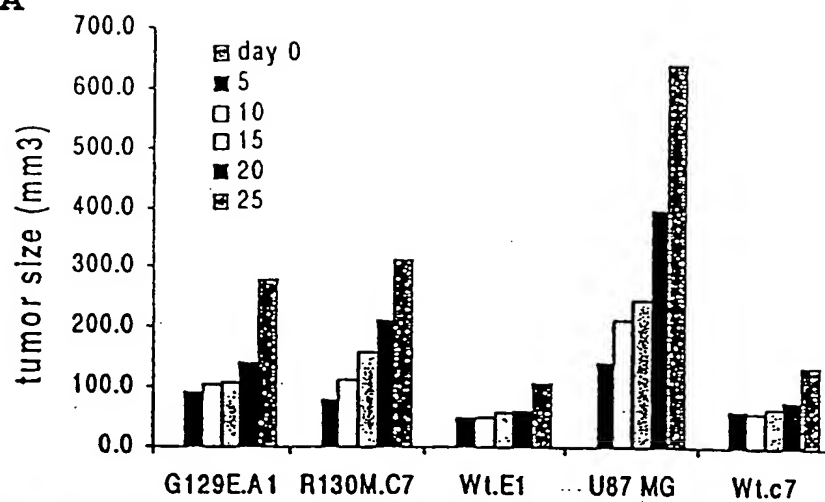


Figure 2B

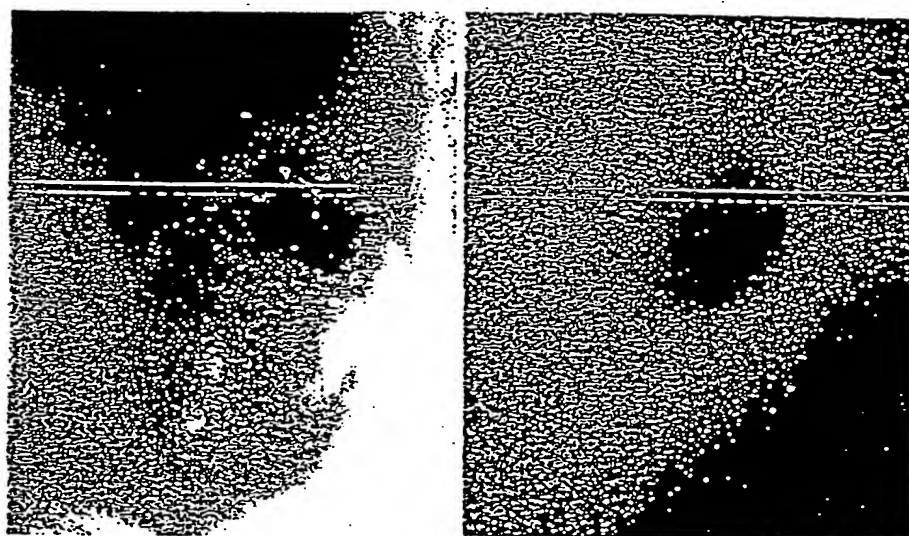
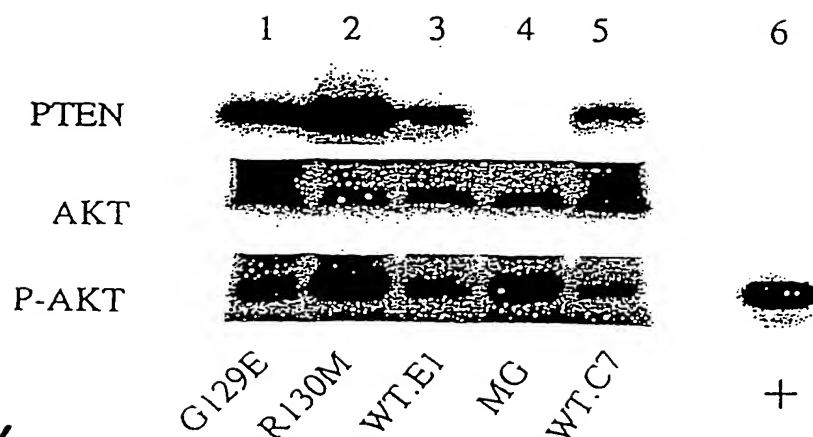


Figure 2C



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Figure 3D

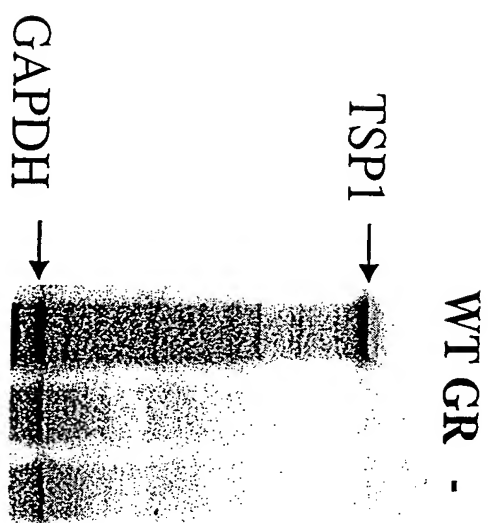
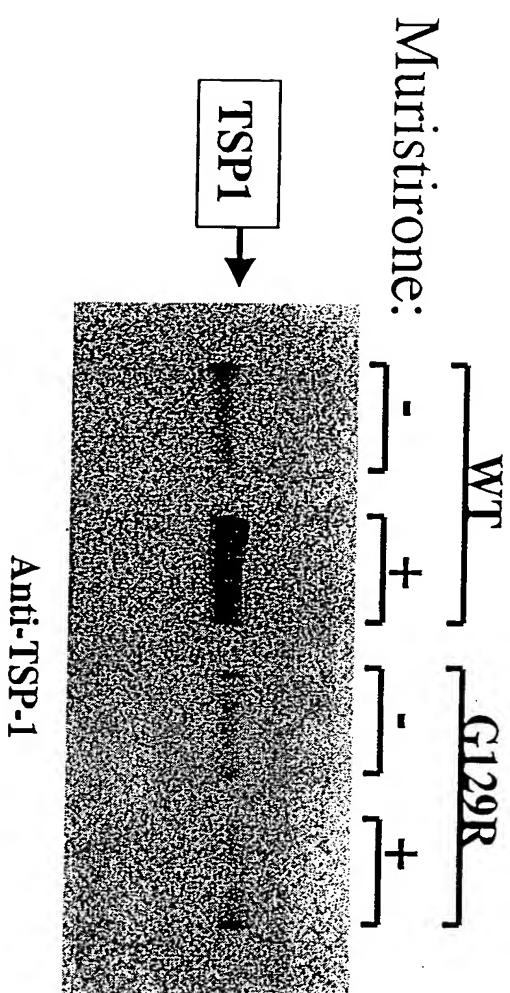


Figure 3E



**Figure 4**

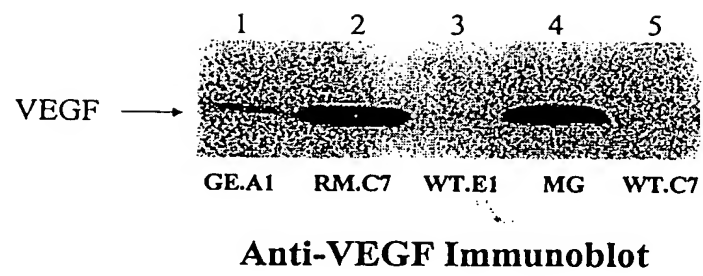


Figure 5A

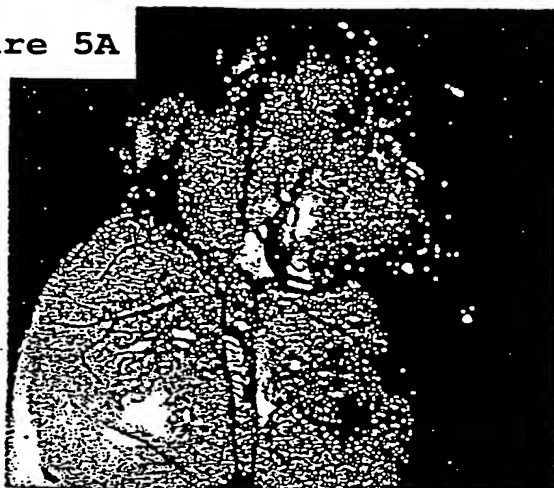


Figure 5B



Figure 5C

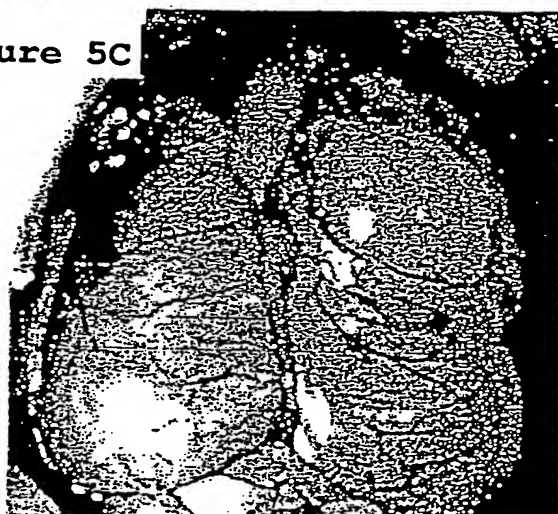


Figure 5D

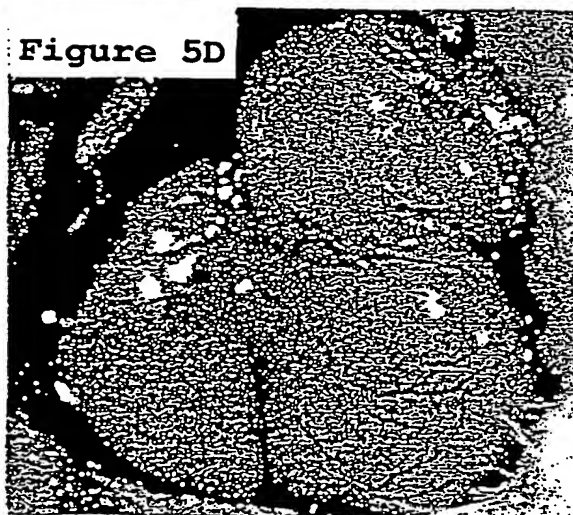


Figure 5E

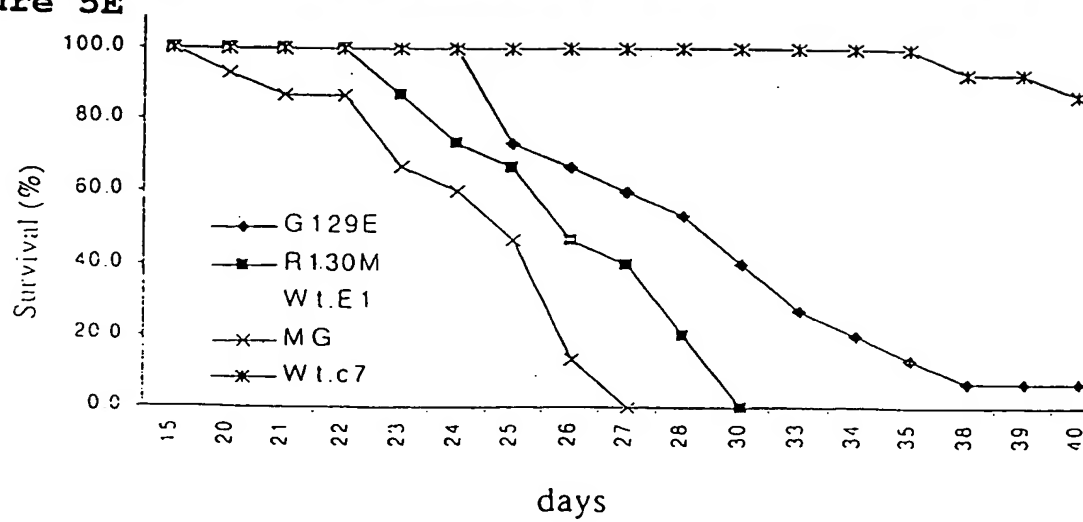


Figure 6

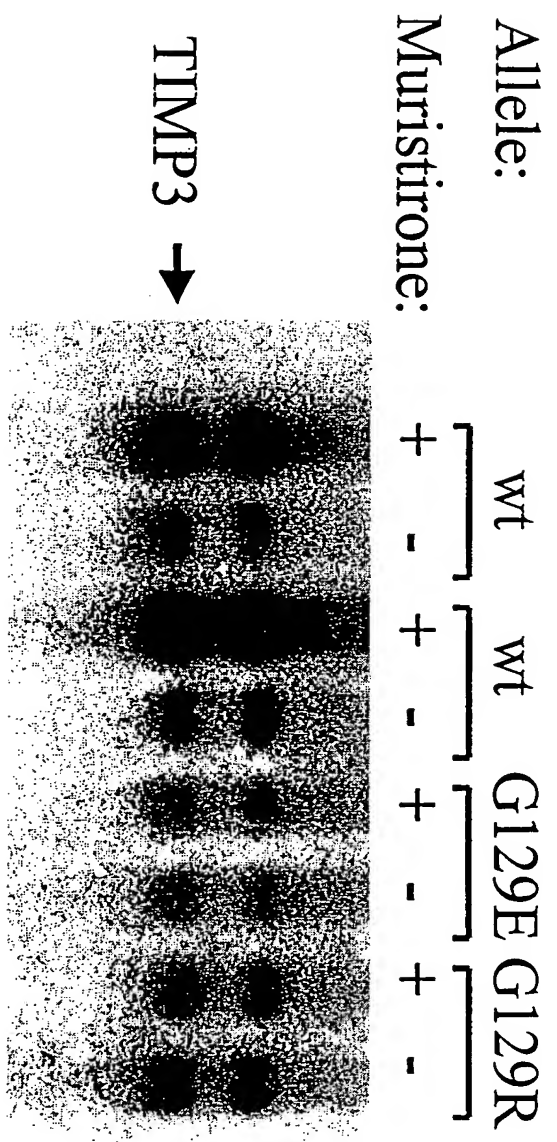


Figure 7

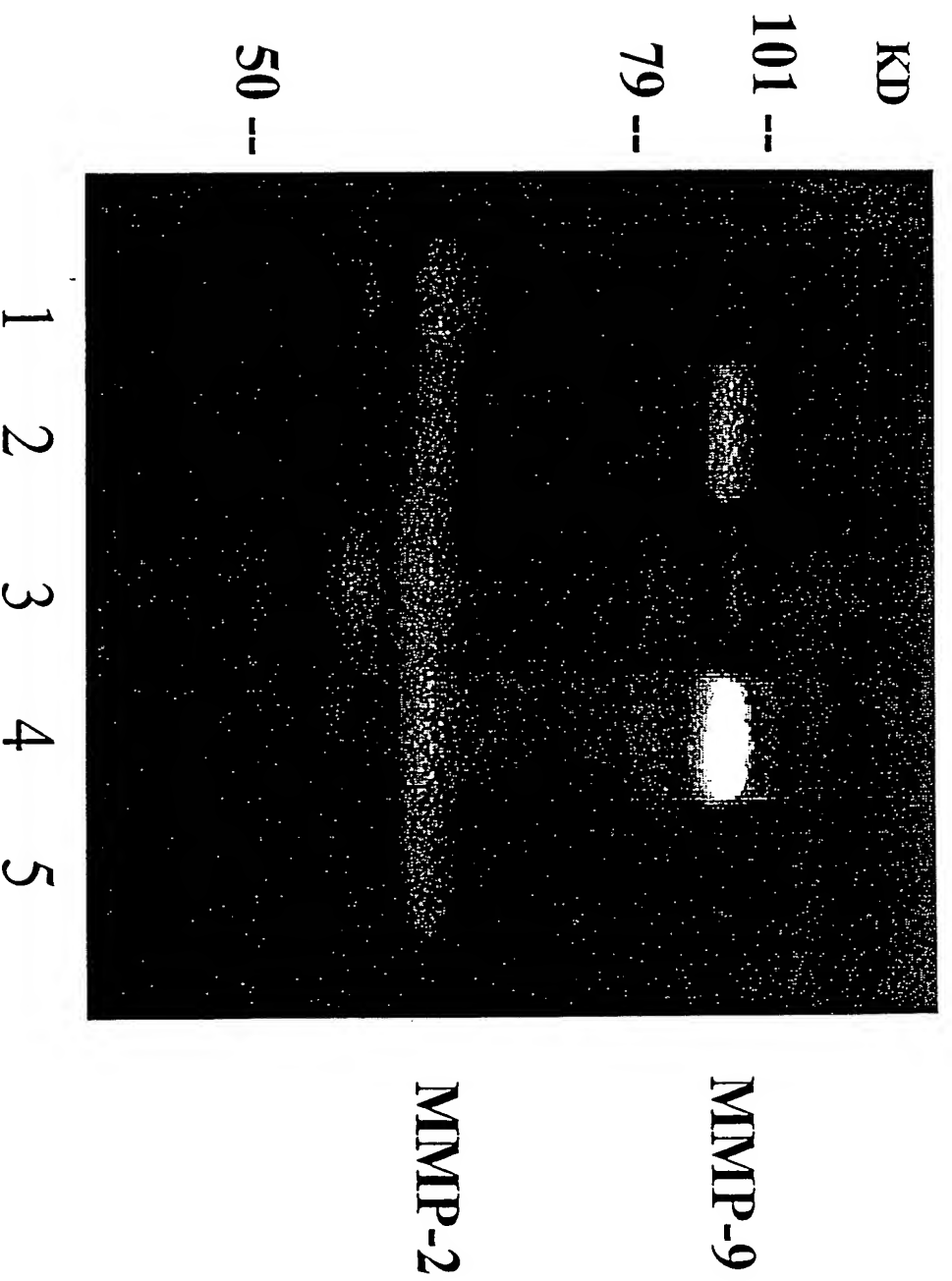
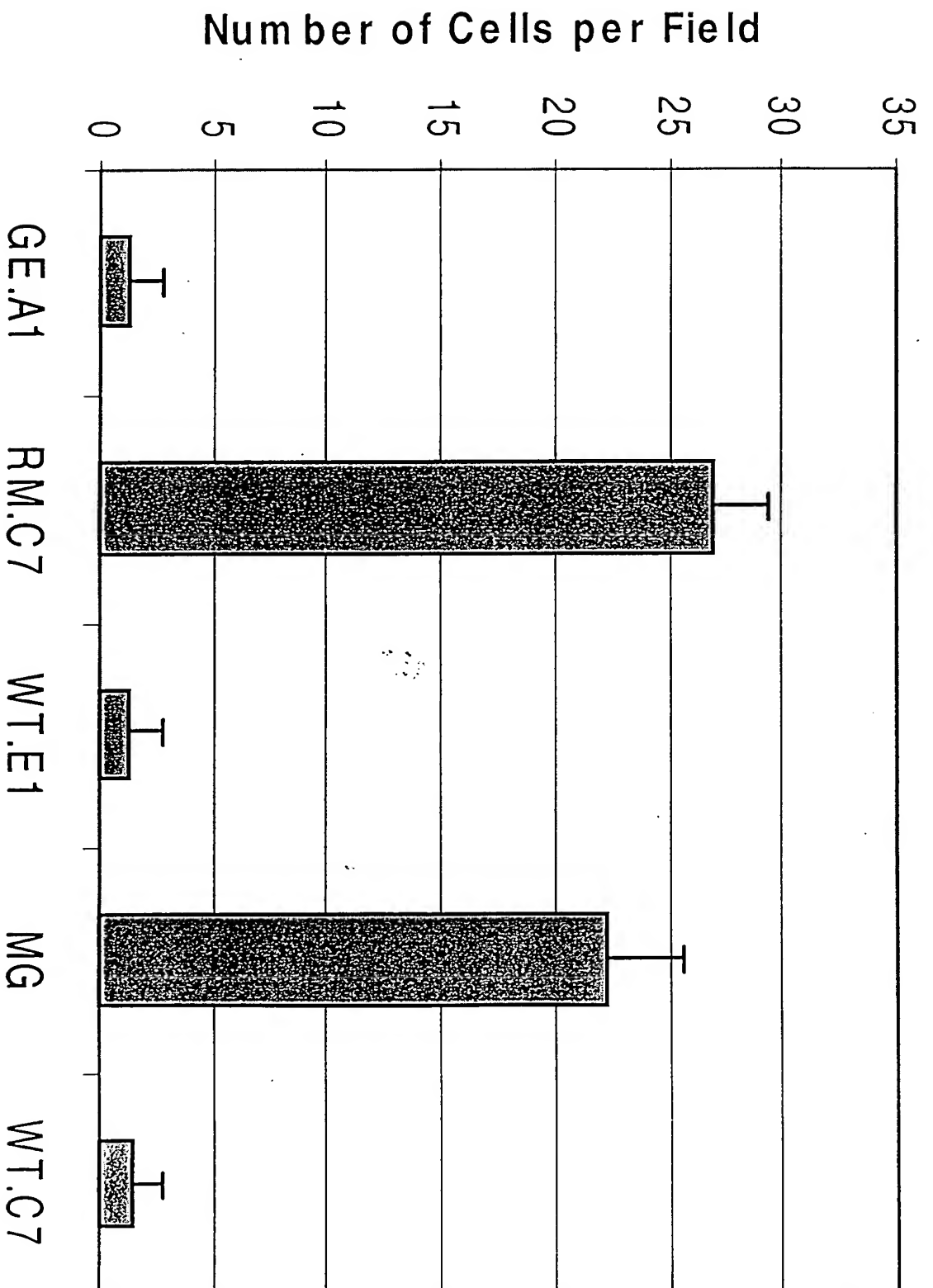
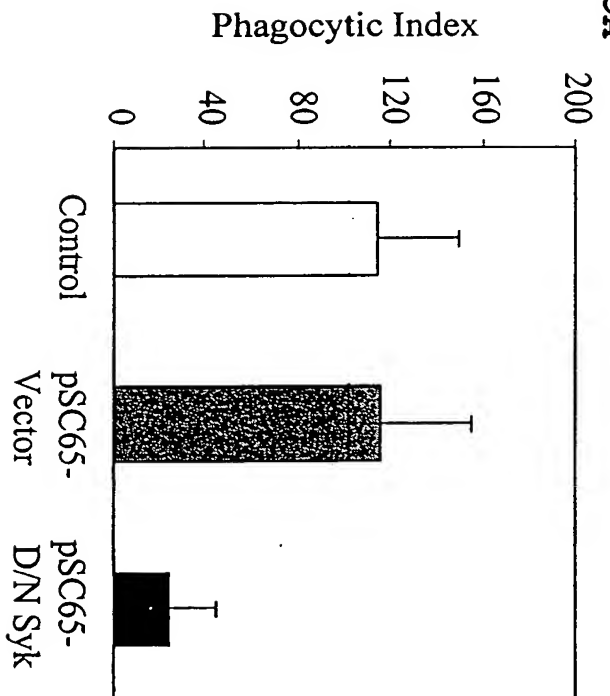




Figure 8



**Figure 9A**



**Figure 9B**

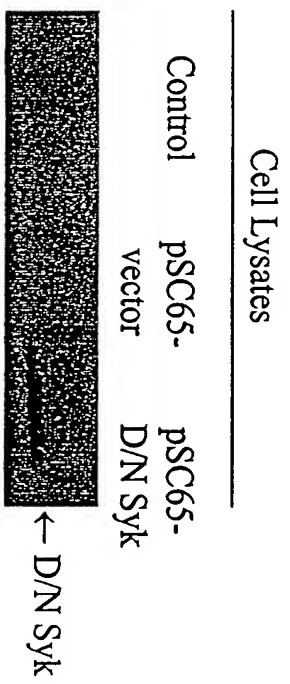


Figure 10A

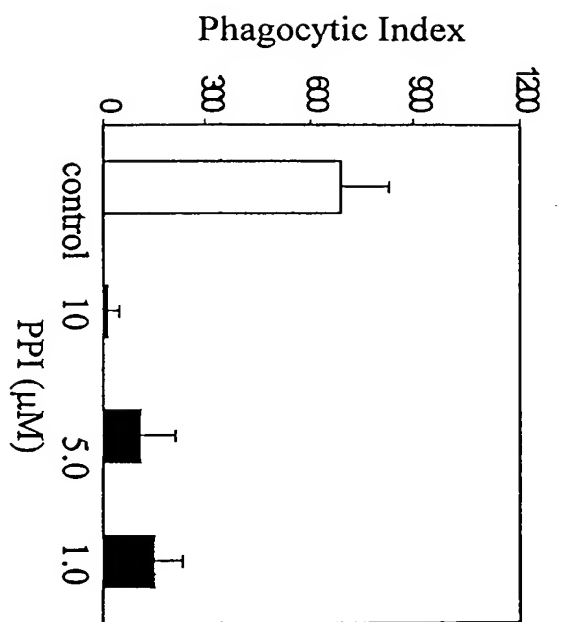
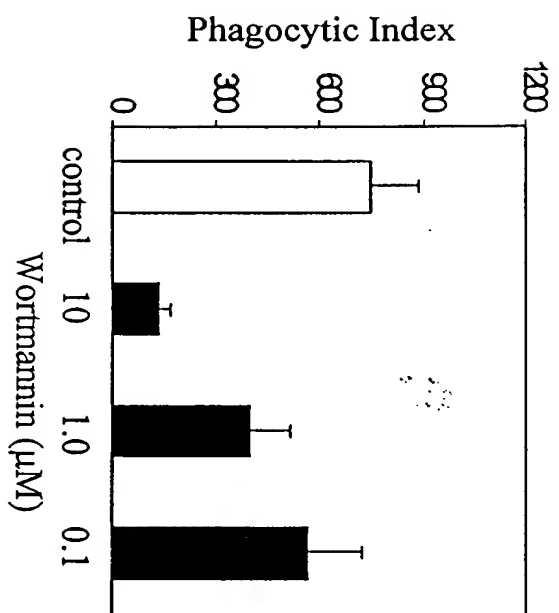
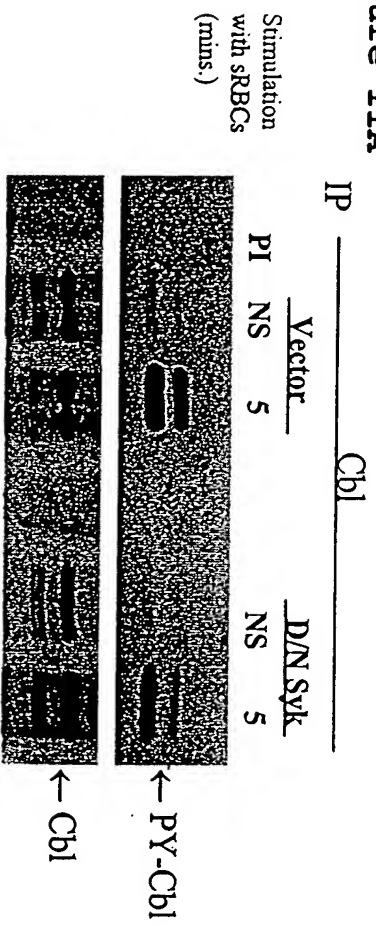


Figure 10B



**Figure 11A**



**Figure 11B**

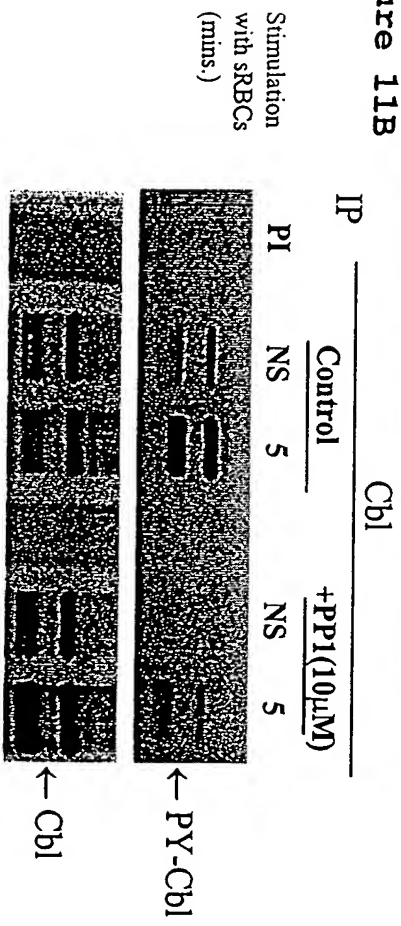


Figure 12

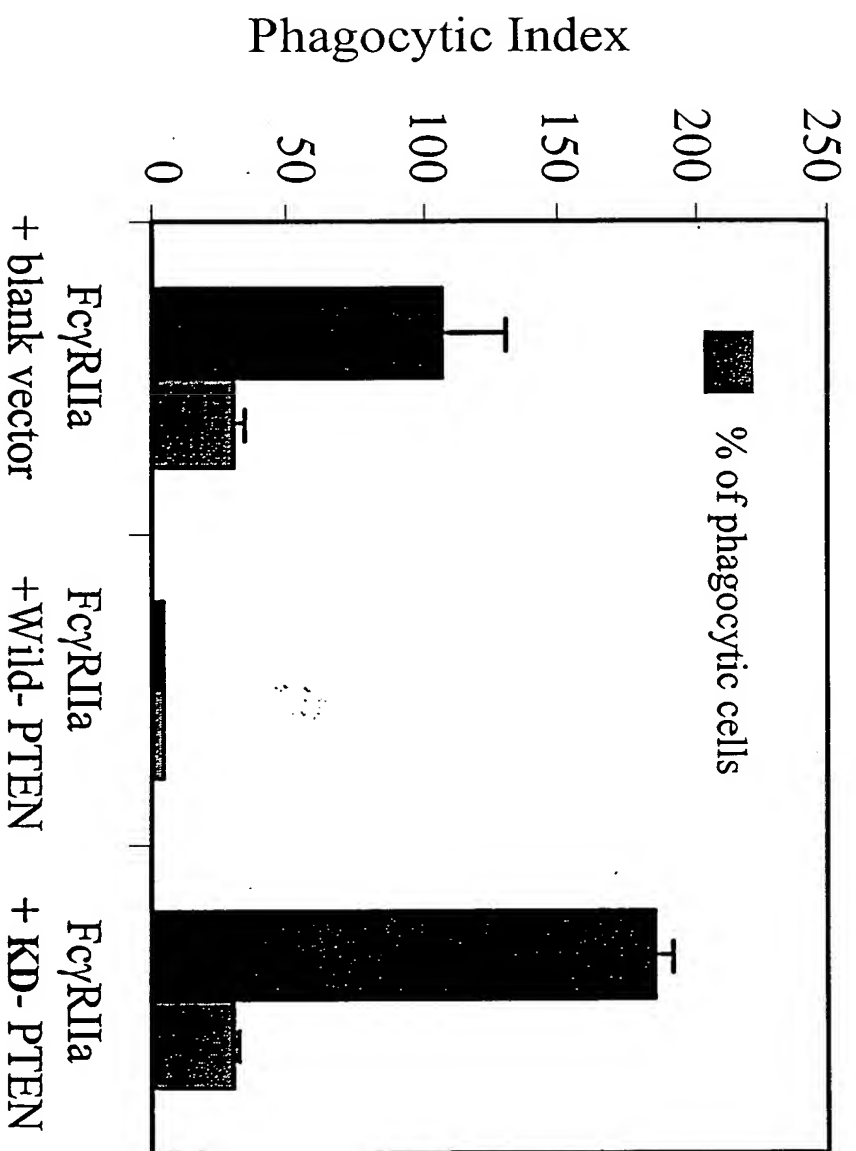


Figure 13

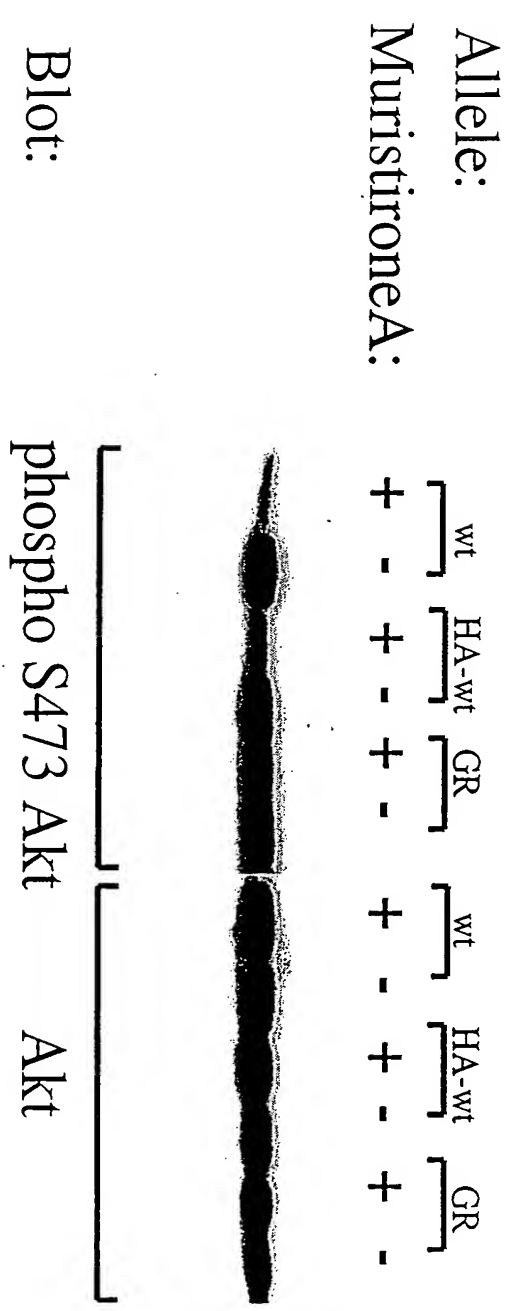


Figure 14

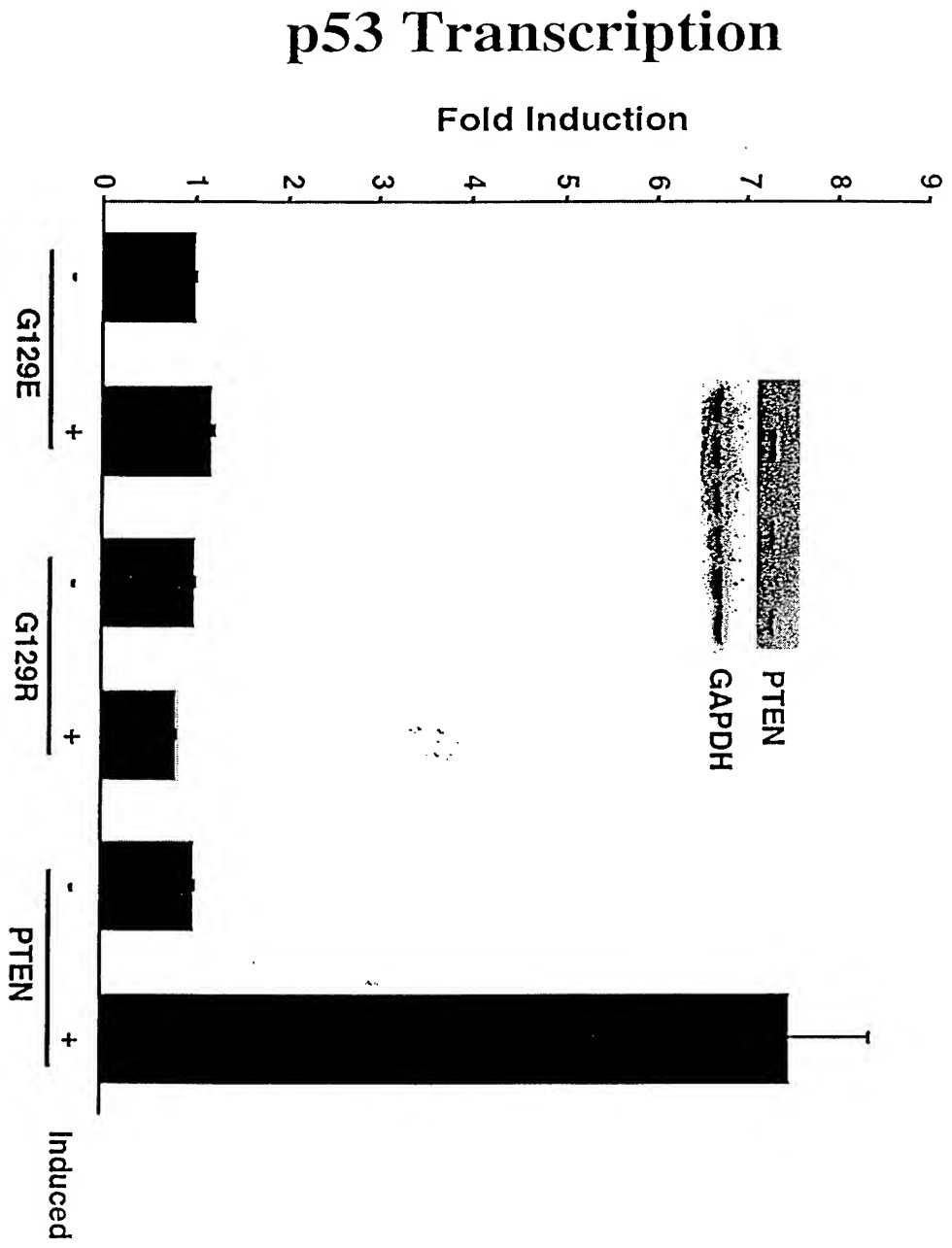


Figure 15

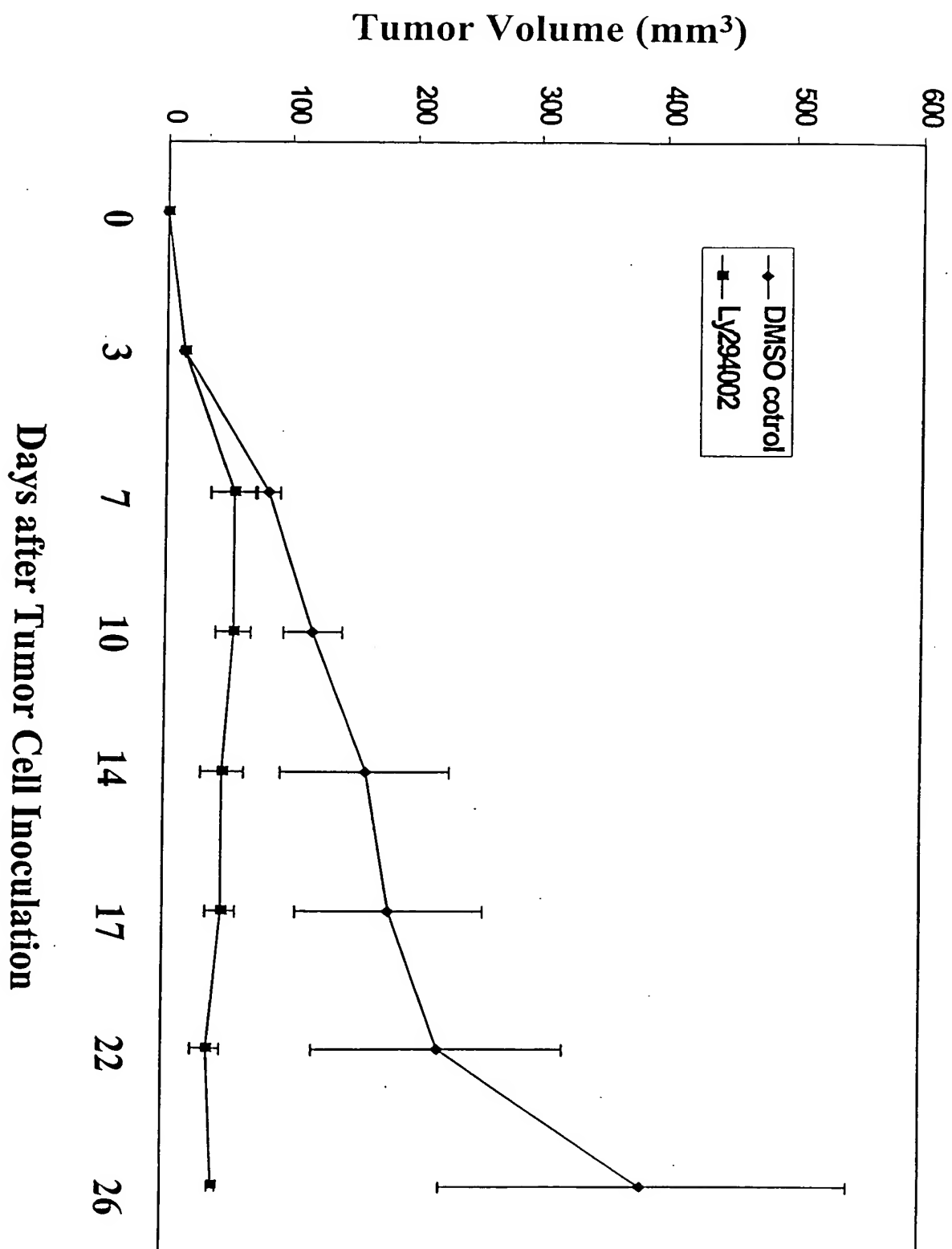




Figure 16

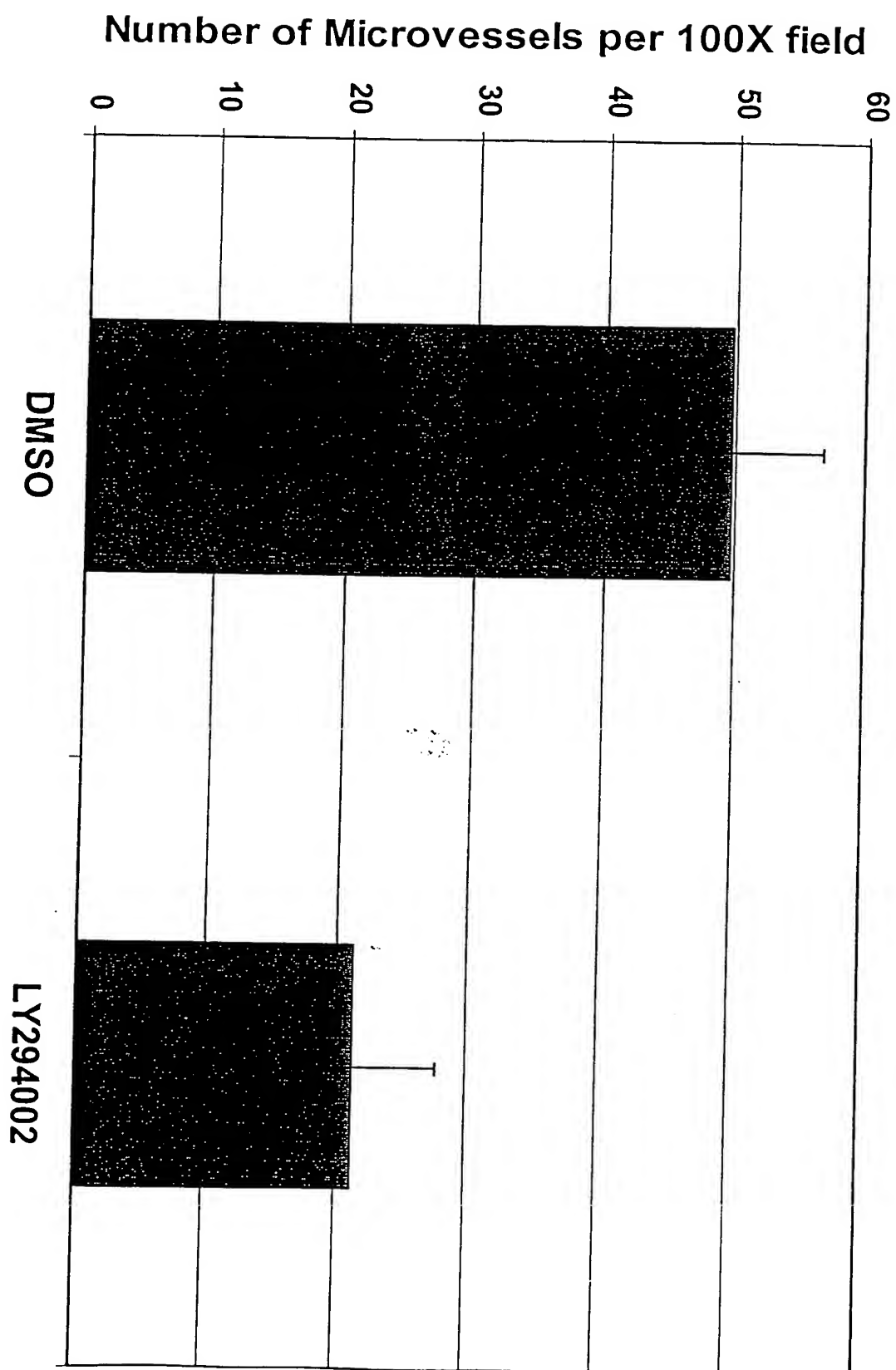


Figure 17

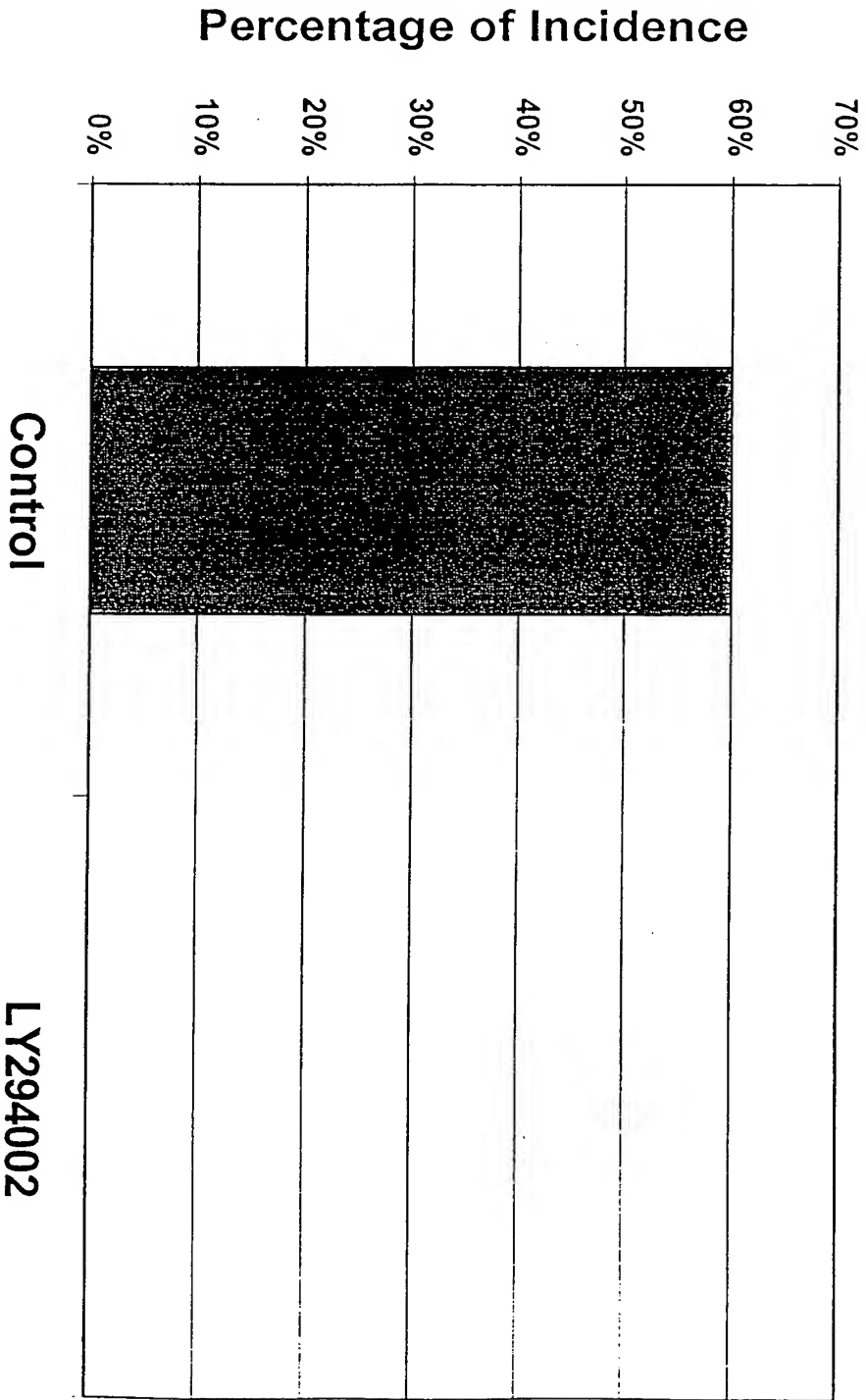


Figure 18

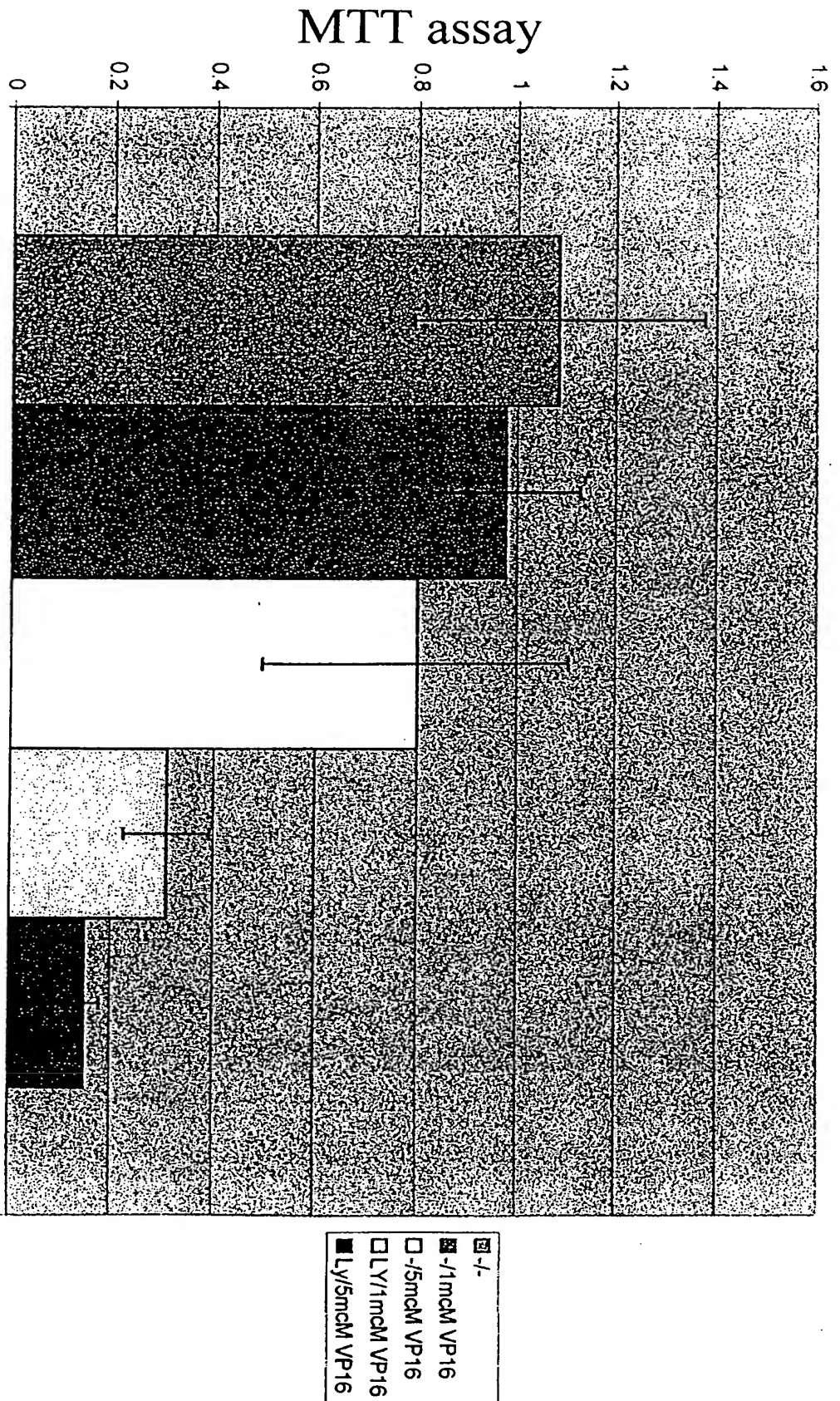


Figure 19

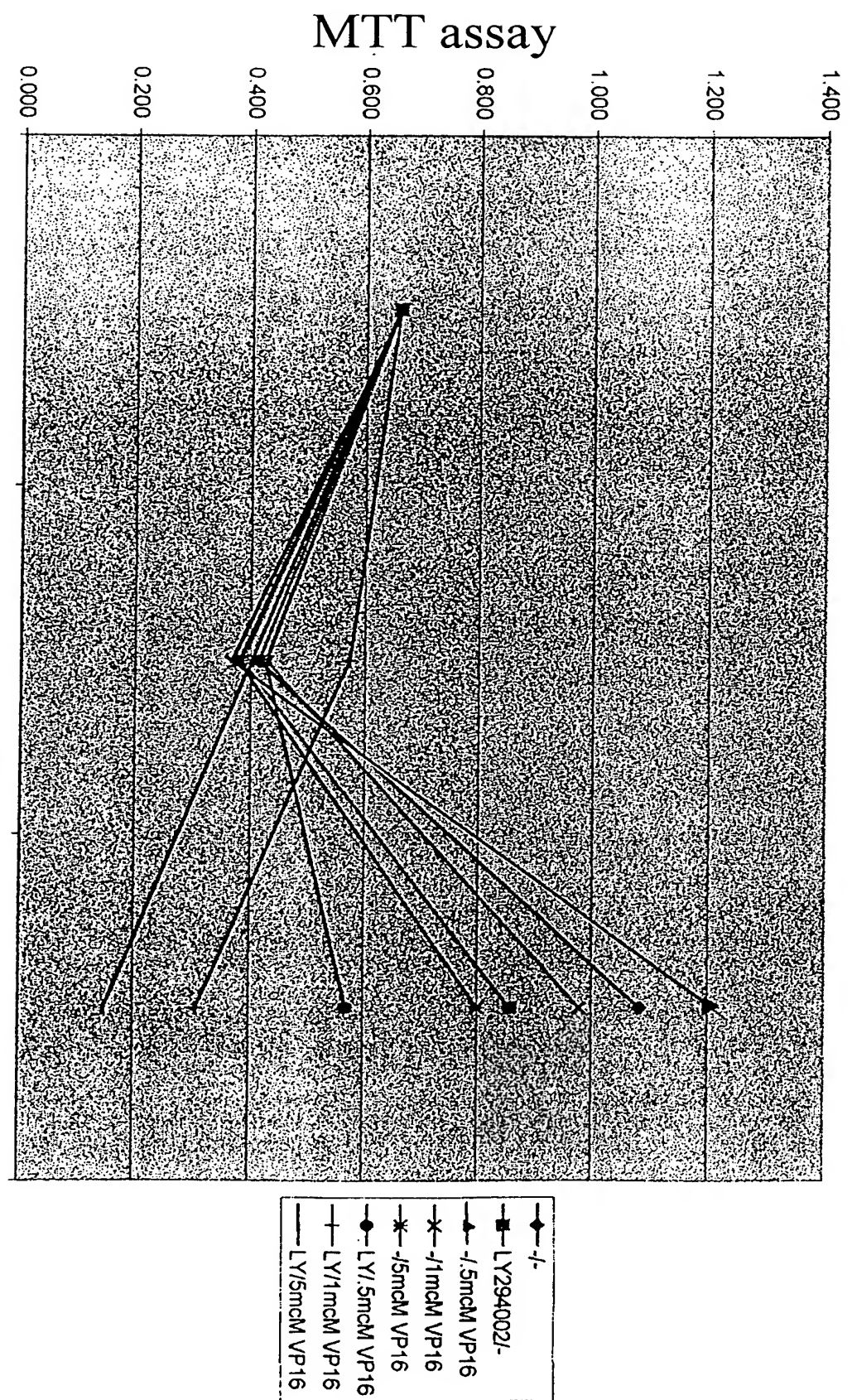
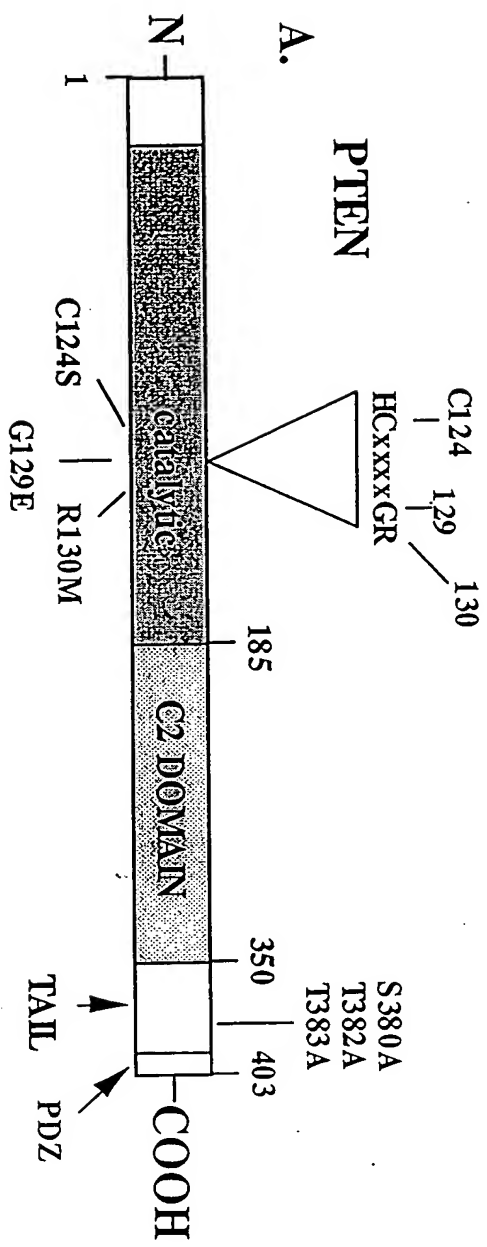


Fig. 20A



```

      1760      1770      1780      1790      1800
ACAAAATGTTTCACTTTTGGGTAAATACGTTCTTCATACCAGGACCAGAG
TGTTTTACAAAGTGAAAACCCATTTATGCAAGAAGTATGGTCCTGGTCTC
D K M F H F W V N T F F I P G P E>
___HOMOLOG OF HUMAN MUTATED IN MULTIPLE ADVANC___>

                                                    >ClaI
                                                    |
                                                    >BsiXI
                                                    |
                                                    >TaqI
                                                    |
      1810      1820      1830      1840      1850
GAAACCTCAGAAAAAGTGGAAAATGGAAGTCTTTGTGATCAGGAAATCGA
CTTTGGAGTCTTTTTCACCTTTTACCTTCAGAAACACTAGTCCTTTAGCT
E T S E K V E N G S L C D Q E I D>
___HOMOLOG OF HUMAN MUTATED IN MULTIPLE ADVANC___>

                                                    >RsaI
                                                    |
      1860      1870      1880      1890      1900
TAGCATTTGCAGTATAGAGCGTGCAGATAATGACAAGGAGTATCTTGATC
ATCGTAAACGTCATATCTCGCACGTCTATTACTGTTCCCTCATAGAACATG
S I C S I E R A D N D K E Y L V>
___HOMOLOG OF HUMAN MUTATED IN MULTIPLE ADVANC___>

      1910      1920      1930      1940      1950
TCACCCTAACAAAAACGATCTTGACAAAGCAAACAAGACAAGGCCAAC
AGTGGGATTGTTTTTTGCTAGAACTGTTTCGTTTGTTCGTTCGGTTG
L T L T K N D L D K A N K D K A N>
___HOMOLOG OF HUMAN MUTATED IN MULTIPLE ADVANC___>

      1960      1970      1980      1990      2000
CGATACTTCTCTCCAAATTTTAAGGTGAAACTATACTTTACAAAACAGT
GCTATGAAGAGAGGTTTAAATTCCTACTTTGATATGAAATGTTTTGTCA
R Y F S P N F K V K L Y F T K T V>
___HOMOLOG OF HUMAN MUTATED IN MULTIPLE ADVANC___>

      2010      2020      2030      2040      2050
AGAGGAGCCATCAAATCCAGAGGCTAGCAGTTCAACTTCTGTGACTCCAG
TCTCCTCGGTAGTTTAGGTCTCCGATCGTCAAGTTGAAGACACTGAGGTC
E E P S N P E A S S S T S V T P>
___HOMOLOG OF HUMAN MUTATED IN MULTIPLE ADVANC___>

      >BsiQI
      |
      2060      2070      2080      2090      2100
ATGTTAGTGACAATGAACCTGATCATTATAGATATTCTGACACCACTGAC
TACAACTCACTGTTACTTGGACTAGTAATATCTATAAGACTGTGGTGACTG
D V S D N E P D H Y R Y S D T T D>
___HOMOLOG OF HUMAN MUTATED IN MULTIPLE ADVANC___>

      >BscCI
      |
      2110      2120      2130      2140      2150
TCTGATCCAGAGAATGAACCTTTTGATGAAGATCAGCATTACAAAATTAC

```

Fig. 20B (continued)

CTTCTGCCATCTCTCTCCTCCTTTTTCCTTCAGCCACAGGCTCCCAGACAT  
GAAGACGGTAGAGAGAGGAGGAAAAAGAAGTCGGTGTCCGAGGGTCTGTA

M>

—>

>EcoRV

960 970 980 990 1000  
GACAGCCATCATCAAAGAGATCGTTAGCAGAAACAAAAGGAGATATCAAG  
CTGTCGGTAGTAGTTTCTCTAGCAATCGTCTTTGTTTTCTCTATAGTTC  
T A I I K E I V S R N K R R Y Q>  
\_\_\_HOMOLOG OF HUMAN MUTATED IN MULTIPLE ADVANC\_\_\_>

>TaqI

1010 1020 1030 1040 1050  
AGGATGGATTTCGACTTAGACTTGACCTATATTTATCCAAATATTATGCT  
TCCTACCTAAGCTGAATCTGAACTGGATATAAATAGGTTTATAATAACGA  
E D G F D L D L T Y I Y P N I I A>  
\_\_\_HOMOLOG OF HUMAN MUTATED IN MULTIPLE ADVANC\_\_\_>

>PstI

1060 1070 1080 1090 1100  
ATGGGATTTCTGTCAGAAAGACTTGAAGGTGTATACAGGAACAATATGTA  
TACCCTAAAGGACGTCTTCTGAACTTCCACATATGTCCTTGTTATAACT  
M G F P A E R L E G V Y R N N I D>  
\_\_\_HOMOLOG OF HUMAN MUTATED IN MULTIPLE ADVANC\_\_\_>

1110 1120 1130 1140 1150  
TGATGTAGTAAGGTTTTTGGATTCAAAGCATAAAAACCATTACAAGATAT  
ACTACATCATTCAAAAACCTAAGTTTCGTATTTTTGGTAATGTTCTATA  
D V V R F L D S K H K N H Y K I>  
\_\_\_HOMOLOG OF HUMAN MUTATED IN MULTIPLE ADVANC\_\_\_>

>PstI

1160 1170 1180 1190 1200  
ACAATCTATGTGCTGAGAGACATTATGACACCGCCAAATTTAACTGCAGA  
TGTTAGATACACGACTCTCTGTAATACTGTGGCGGTTTAAATTGACGTCT  
Y N L C A E R H Y D T A K F N C R>  
\_\_\_HOMOLOG OF HUMAN MUTATED IN MULTIPLE ADVANC\_\_\_>

1210 1220 1230 1240 1250  
GTTGCACAGTATCCTTTTGAAGACCATAACCCACCACAGCTAGAACTTAT  
CAACGTGTCATAGGAAAACCTCTGGTATTGGGTGGTGTGATCTTGAATA  
V A Q Y P F E D H N P P Q L E L I>  
\_\_\_HOMOLOG OF HUMAN MUTATED IN MULTIPLE ADVANC\_\_\_>

>BglII

1260 1270 1280 1290 1300  
CAAACCCTTCTGTGAAGATCTTGACCAATGGCTAAGTGAAGATGACAATC  
GTTTGGGAAGACACTTCTAGAACTGGTTACCGATTCACCTCTACTGTTAG  
K P F C E D L D Q W L S E D D N>  
\_\_\_HOMOLOG OF HUMAN MUTATED IN MULTIPLE ADVANC\_\_\_>

Fig. 20B

1310            1320            1330            1340            1350  
 ATGTTGCAGCAATTCACTGTAAAGCTGGAAAGGGACGGACTGGTGTAATG  
 TACAACGTCGTTAAGTGACATTTCGACCTTTCCCTGCCTGACCACATTAC  
 H V A A I H C K A G K G R T G V M>  
 \_\_\_\_HOMOLOG OF HUMAN MUTATED IN MULTIPLE ADVANC\_\_\_\_>

1360            1370            1380            1390            1400  
 ATTTGTGCATATTTATTGCATCGGGGCAAATTTTAAAGGCACAAGAGGC  
 TAAACACGTATAAATAACGTAGCCCCGTTTAAAAATTTCCGTGTTCTCCG  
 I C A Y L L H R G K F L K A Q E A>  
 \_\_\_\_HOMOLOG OF HUMAN MUTATED IN MULTIPLE ADVANC\_\_\_\_>

1410            1420            1430            1440            1450  
 CCTAGATTTTTATGGGGAAGTAAGGACCAGAGACAAAAAGGGAGTCACAA  
 GGATCTAAAAATACCCCTTCATTCTCTGGTCTCTGTTTTTCCCTCAGTGTT  
 L D F Y G E V R T R D K K G V T>  
 \_\_\_\_HOMOLOG OF HUMAN MUTATED IN MULTIPLE ADVANC\_\_\_\_>

1460            1470            1480            1490            1500  
 TTCCCAGTCAGAGGCGCTATGTATATTATTATAGCTACCTGCTAAAAAAT  
 AAGGTCAGTCTCCGCGATACATATAATAATATCGATGGACGATTTTTTA  
 I P S Q R R Y V Y Y Y S Y L L K N>  
 \_\_\_\_HOMOLOG OF HUMAN MUTATED IN MULTIPLE ADVANC\_\_\_\_>

1510            1520            1530            1540            1550  
 CACCTGGATTACAGACCCGTGGCACTGCTGTTTCACAAGATGATGTTTGA  
 GTGGACCTAATGTCTGGGCACCGTGACGACAAAGTGTCTACTACAACT  
 H L D Y R P V A L L F H K M M F E>  
 \_\_\_\_HOMOLOG OF HUMAN MUTATED IN MULTIPLE ADVANC\_\_\_\_>

1560            1570            1580            1590            1600  
 AACTATTCCAATGTTTCAGTGGCGGAACCTTGCAATCCTCAGTTTGTGGTCT  
 TTGATAAGGTTACAAGTCACCGCCTTGAACGTTAGGAGTCAAACACCAGA  
 T I P M F S G G T C N P Q F V V>  
 \_\_\_\_HOMOLOG OF HUMAN MUTATED IN MULTIPLE ADVANC\_\_\_\_>

1610            1620            1630            1640            1650  
 GCCAGCTAAAGGTGAAGATATATTCCTCCAATTCAGGACCCACGCGCGG  
 CGGTGATTTCCACTTCTATATAAGGAGGTTAAGTCCTGGGTGCGCCGCC  
 C Q L K V K I Y S S N S G P T R R>  
 \_\_\_\_HOMOLOG OF HUMAN MUTATED IN MULTIPLE ADVANC\_\_\_\_>

>RsaI  
 |  
 1660            1670            1680            1690            1700  
 GAGGACAAGTTCATGTACTTTGAGTTCCTCAGCCATTGCCTGTGTGTGG  
 CTCCTGTTCAAGTACATGAACTCAAGGGAGTCGGTAACGGACACACACC  
 E D K F M Y F E F P Q P L P V C G>  
 \_\_\_\_HOMOLOG OF HUMAN MUTATED IN MULTIPLE ADVANC\_\_\_\_>

>EcoRV  
 |  
 | 1710            1720            1730            1740            1750  
 TGATATCAAAGTAGAGTTCTTCCACAAACAGAACAAGATGCTCAAAAAGG  
 ACTATAGTTTCATCTCAAGAAGGTGTTTGTCTTGTCTACGAGTTTTTCC  
 D I K V E F F H K Q N K M L K K>  
 \_\_\_\_HOMOLOG OF HUMAN MUTATED IN MULTIPLE ADVANC\_\_\_\_>

Fig. 20B (continued)



( )

AGACTAGGTCTCTTACTTGGAAGTACTTCTAGTCGTAAGTGTTTAATG  
S D P E N E P F D E D Q H S Q I T>  
\_\_\_\_HOMOLOG OF HUMAN MUTATED IN MULTIPLE ADVANC\_\_\_\_>

2160  
AAAAGTCTGA  
TTTTCAGACT  
K V \*>

Fig. 20B (continued)